Ministry of Natural Resources

Fish and Wildlife Special Purpose Account

2011/2012 Annual Report

Ontario

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BACKGROUND

The *Fish and Wildlife Conservation Act* (FWCA) requires that revenues collected under that Act flow into the Fish and Wildlife Special Purpose Account (SPA). This includes all licence fees, royalties and fines paid under the FWCA and its regulations. Money held in this account may only be spent on:

- the conservation or management of wildlife or fish populations or the ecosystems of which those populations are a part;
- matters related to the activities of people as they interact with or affect wildlife or fish populations, including any matter related to safety; or
- a refund of all or part of a fee or royalty.

The combined funds received from the SPA and the Consolidated Revenue Fund (CRF) provide for the delivery of an effective and diverse program, including resource management activities such as enforcement, resource monitoring, policy and program development, resource allocation, licensing, research, and fish stocking.

In 2011/12, the Ministry began a review of the SPA to:

- improve the governance and management of the fund;
- develop objectives, outcomes and more specific performance measures;
- improve financial and accounting processes;
- improve the revenue forecasting model; and
- develop a new work plan and allocation model.

This internal review was completed by March 2012 and implementation of approved changes began in Fiscal Year 2012-13. It is expected that future annual reports will be informed by this review and the resulting planning and performance measure recommendations

FISH AND WILDLIFE HERITAGE COMMISSION RECOMMENDATIONS

The Fish and Wildlife Heritage Commission (FWHC), established under the provisions of the *Heritage Hunting and Fishing Act*, provides recommendations on matters referred to it by the Minister. The FWHC was active during 2011/2012 and reviewed materials and/or provided input on enhancement of the SPA; youth hunting opportunities, and a Children's Outdoor Bill of Rights of Ontario. The formal recommendations of the FWHC on these topics, and MNR's response to the recommendations, are summarized in the following table.

FWHC Recommendation (July 2012)	Ministry Response (response letters were sent September 28, 2012)
Special Purpose Account (SPA) Enhancement – Recommendations: • That a member of the Fish and Wildlife Heritage Commission be considered for a direct role on the MNR Corporate Advisory Team (CAT) for the Fish and Wildlife SPA • MNR commits to a funding formula to ensure that increased revenues to the Fish and Wildlife SPA result in the delivery of an enhanced Fish and Wildlife Program through government contributing a set proportion of funds annually to the SPA.	• The Minister appreciates the early thinking and recommendations provided to him by the Commission
Children's Outdoor Bill of Rights • MNR promote outdoor activities including fishing and hunting as healthy youth/family endeavours by introducing a Children's Outdoor Bill Of Rights.	• This concept will be discussed more thoroughly at the meeting on December 17-18, 2012
Elk Celebration Event • MNR celebration of the successful re-introduction of elk in Ontario.	• MNR participated in a June 3, 2011 event in Bancroft at which Ontario and the partners who helped restore elk to the province were honoured. • The event was used as an opportunity to promote the fall 2011 elk hunt and celebrate the successful reintroduction of elk to Ontario.

Fish and Wildlife SPA Revenues

Revenues deposited into the SPA largely come from anglers, hunters and commercial users of fish and wildlife resources. Of the total SPA revenues, more than 90 percent comes from angling and hunting licences and permits. Of this, approximately two-thirds are associated with recreational fishing and one-third with hunting. About two-thirds of recreational licence revenues are derived from Ontario residents and about one-third from non-residents. Over the past three fiscal years, total annual licence sales have included an average of about 965,000 resident fishing licences; 29,000 Canadian resident fishing licences; 589,000 resident hunting licences; 578,000 non-resident fishing licences, and 34,000 non-resident hunting licences. Other revenue sources include fines collected under the FWCA, interest paid on the SPA account and other miscellaneous sources such as product sales, advertising, and donations. In 2011/12 there is an unusual decline in Other Revenue as a result of an accounting entry to correct prior year revenues.

Revenues ($000's) to the Fish and Wildlife SPA over the past 3 fiscal years

Source of Revenue	2009/10	2010/11	2011/12
Ontario Resident Angling and Hunting Licences and Permits	$38,558.0	$55,614.9	$42,939.1
Non-Resident Angling and Hunting Licences and Permits	$15,601.7	$15,743.3	$16,450.0
Commercial Fish Licences and Royalties	$922.9	$1,122.4	$1,328.0
Bait Fish Licences	$314.1	$319.5	$304.7
Fur Licences and Royalties	$766.8	$730.1	$861.0
Fines and Penalties	$696.1	$875.6	$820.5
Interest	$56.8	$261.1	$411.1
Other Revenue	$545.8	$364.8	($5.0)
Total Revenue	**$57,461.6**	**$75,031.7**	**$63,109.4**

Annual recoveries from the SPA are planned based on a 3-year rolling average of expected revenues, due to significant annual fluctuations resulting from the Outdoors Card 3-year purchasing cycle. Treasury Board approves the SPA recovery level as part of the Ministry's annual Results Based Plan submission.

Recovery/expenditure levels, revenues and the resulting SPA account balance are reviewed annually as part of the program business planning cycle, and planned recoveries are adjusted as required. The program plans to maintain a minimum year-end SPA balance of approximately 5% of annual planned expenditures, to allow for unexpected changes in revenue. The table below shows revenues and recoveries from the SPA and resulting year-end SPA balances for the past three fiscal years and the projected balance for the current fiscal year.

Summary of recoveries, revenues and year-end account balances ($000)

Item	2009/10	2010/11	2011/12	2012/2013 (Projected)
Year Start SPA Balance	$21,790.1	$15,046.6	$25,586.9	$21,139.9
Revenues	$57,461.6	$75,031.7	$63,109.4	$59,714.6
Recoveries/ Expenditures	($64,205.0)	($64,491.4)	($67,556.4)	($72,318.0)
Year End SPA Balance	**$15,046.6**	**$25,586.9**	**$21,139.9**	**$8,536.5**

Operating expenditures for the Fish and Wildlife Program, including enforcement, amounted to $105.9 million in fiscal year 2011/12. Approximately 64% percent of these expenditures ($67.5 million) were supported by recoveries from the Fish and Wildlife SPA. The remaining $38.4 million in program expenditures were supported by funding from the CRF.

ACHIEVEMENTS

Throughout 2011/12, the Fish and Wildlife Program continued to focus on its goal of providing leadership and direction in sustaining healthy ecosystems, managing the province's fish and wildlife resources and maintaining or enhancing social, economic and cultural benefits derived from these resources.

SPA and CRF funds were integrated for program delivery. The Fish and Wildlife program achievements from both funding sources for 2011/12 include the following.

- Fish stocking and restoration efforts:
  - Approximately 7.3 million fish were stocked into approximately 1000 water bodies, including four Great Lakes, to support the rehabilitation of native fish stocks (4.4 million) and put-grow-and-take fisheries (2.9 million).
  - Rehabilitation stocking included 3.0 million lake trout into the Great Lakes; and 0.596 million Atlantic salmon (includes spring fingerlings, fall fingerlings, spring yearlings and a small number of surplus adults) into Lake Ontario tributaries in support of the Lake Ontario Atlantic Salmon Restoration Program.
  - Resumed production of 630,000 Chinook salmon for stocking in 2012/2013.
  - Provided approximately 1.5 million eggs and/or fry/fingerlings to partners.
  - Initiated preparations to begin to culture muskellunge in 2012/2013.

- Commercial fishery licenses issued across the Great Lakes generated $1.1 million in commercial fish royalties and licence fees. Continued Commercial Fish Business Relationship with Ontario Commercial Fisheries Association.

- Held the first Lake Ontario Trout and Salmon Symposium in Port Credit in partnership with the Fisheries Management Zone (FMZ) 20 Council with over 300 anglers participating.

- Provided support to binational partnerships for Great Lakes management.

- Through the support of the Great Lakes Fishery Commission and in cooperation with U.S. State and Federal agencies, presented the State of Lake Huron Conference to an international audience in Windsor, Ontario.

- Commenced public consultation on the 'Revised Lake Trout Rehabilitation Plan for Ontario Waters of Lake Huron' and the 'Stocking Plans for Ontario Waters of Lakes Huron and Superior'.

- Supported recovery of lake sturgeon in the Great Lakes through stock assessment, acoustic tagging, education, and reporting on the status of remnant stocks.

- Supported recovery of lake trout in eastern Lake Erie by stocking and monitoring as part of a lake-wide Great Lakes Fishery Commission Restoration Plan.

- Ongoing intensive monitoring of the Great Lakes including a revised large vessel program with the newly commissioned Ontario Explorer and Huron Explorer 1.

- Management of Specially Designated Waters:
  - Undertook a creel survey to assess fish harvests on the North Arm of Rainy Lake
  - Began the development of fisheries management plans for Eagle, Wabigoon, Dinorwic and Red Lakes and the Winnipeg River.

- Ottawa River Fisheries Telemetry Project: Support provided to the volunteer group to continue the study of the Ottawa River eel population. Many hours of tracking flights were conducted and mapping continues to be developed. This work supports a continued study in 2013 funded by Species at Risk and partnered with federal Canadian Wildlife Service.

- Denny's Dam Fish Monitoring System installed. During migration periods the system tracks and archives fisheries information such as: fish species, daily temperatures and population trends over time. This technology will allow MNR to monitor climate change impact and invasive species on the Saugeen River.

- Lake Trout spawning assessments: In the fall of 2011, lake trout spawning assessment was completed on four lakes: Catchacoma, Mississauga, Percy and Kushog Lakes in Bancroft District. In October, visual observations of lake trout spawning activity were documented on potential and verified sites. Confirmed spawning locations were mapped and water level fluctuations were monitored during this time.

- Fisheries Management Planning, Monitoring and Assessment:
  - Lake Nipissing – implemented and analyzed results of open water and winter creel surveys on this large important specially designated water, contributing to understanding trends of recreational walleye harvests and population status
  - In support of restoring acid-damaged lake trout lakes in the Sudbury Basin, funds were used to stock ten lakes with lake trout yearlings and assess past stocking efforts in two lakes.
  - Implemented fall walleye index netting of Charleton and Frood Lakes in Sudbury District to support the assessment of walleye restoration efforts.
  - Implemented aquatic thermal surveys at sites on the Ivanhoe River for baseline monitoring of proposed renewable energy projects.
  - Supported telemetry studies on sturgeon and anadromous brook trout populations in Cochrane District, and sturgeon monitoring in Timmins District.
  - Supported fish stocking and lake suitability assessments in two districts (Timmins and Kirkland Lake).
  - Hearst District assessed various potential walleye spawning sites.

- Successful launch of the mobile app for Fish ON-Line – which means that you can now use your mobile device (I-Phone, Blackberry and Android) to search for information on your lake destination including fish species, stocking information, lake depth contours and even directions how to get there.

- Eradication efforts continue for European water chestnut and Water soldier in the Ottawa and Trent rivers respectively.

- The Asian Carp Response plan has been finalized and Ontario is prepared to respond to any threats from this seriously invasive species

- Fisheries Management Zone (FMZ) Councils and Planning:
    - Supported the FMZ Advisory Councils in FMZs 4, 5 and, 9 as they progress through the fisheries management planning process.
    - Developed fisheries management objectives and actions to deal with fisheries management challenges and issues identified in the FMZ 4 background report.
    - In the process of completing the first draft of a management plan for FMZ 4.
    - Completed a Fisheries Background Report for FMZ 5 and are in the process of developing fisheries management objectives and actions for FMZ 5.
    - Continued work to implement the Minister's decision to move forward with the recommendations of the FMZ 9 council to remove the dam on the Black Sturgeon River.
    - Continued implementation of the FMZ 6 fisheries management plan.
    - Analysis and interpretation of broad scale fisheries monitoring results for assessed lakes within FMZs 8, 10 and 11 to provide additional background information to inform councils for the development of fisheries management objectives.
    - In FMZ 12, five council meetings were held for information sharing and discussion to achieve the target of a management plan in 2013
    - Supported FMZ 10 and 11 in planning council meetings and consultation efforts for regulations proposals for FMZ 10

- Implemented the Lake Simcoe Management Zone (with its unique set of baitfish regulations) to slow the further spread of VHS to inland waters and the spread of invasive species to Lake Simcoe. Monitoring, reporting, tracking and elimination efforts for invasive species is ongoing:
    - 112 lakes are part of regular monitoring for invasive species

- The Invasive Species Hotline is a successful ongoing partnership with OFAH –
    - last year almost 900 calls were received, with over 75 confirmed reports of species.

- Netting surveys conducted on 85 inland lakes collecting information on fish species, sex, age, length, weight, and general health. Completed aerial surveys on 227 inland lakes collecting information related to angling pressure. This information informs the management of Fisheries Management Zones across the province.

- Diagnostic Tools for Evaluating the Health of Inland Lake Fisheries and Ecosystems: Development of computer-based diagnostic tools to provide a reference for interpreting results from broad scale inland lake fisheries monitoring activities. Reference points are required to ensure FMZ objectives have been achieved and to guide future management decisions.

- Intensive Inland Lake Monitoring: Conducted long-term monitoring studies on a set of representative fish communities and lakes across the province. Informs the management of several large lakes with intensive fishing pressure and allows for interpretation of broad scale monitoring results. Delivered through MNR's network of Fisheries Assessment Units: Lake Simcoe; Kawartha Lakes; Lake of the Woods; Muskoka Lakes; Quetico-Milles Lacs; Algonquin Park; and Lake Nipigon.

- Impact of Zebra and Quagga Mussels on Commercially Harvested Lake Whitefish in the Great Lakes: Analysis across the Great Lakes to determine whether the diet, growth rate, and habitat of Lake Whitefish have changed since the invasion of exotic mussels. Results will inform quotas and stock assessment models.

- Ecological Integrity of Great Lakes Food Webs and Impacts of Invasive Species: Invasive species alter food webs in the Great Lakes which threaten biodiversity and impact local economies. Research is underway to assess the ecological impact of *Hemimysis anomala* and Asian carp, and approaches to control round goby. Tools are also being developed for rapid response to invasive species.

- Impact of Climate Change on Walleye and Lake Trout Fisheries: Study to determine the effect of water temperature on the spatial distribution of Walleye and Lake Trout and their prey. New knowledge will support improved forecasts of the impact of climate change on sustainable harvest. The study will also support more accurate calibration of netting data as results will improve understanding of variables that influence catchability.

- Bioenergetics of Fish Nutrition for Fish Culture: The last year of a five-year agreement with the University of Guelph to conduct research on the bioenergetics of fish feed, development of waste management models, and support for both the aquaculture industry and MNR's fish culture program in the production of quality fish.

- Stock Structure and Genetics of Native Fish Species: Research to improve understanding of genetics and stock structure of recreational and commercial fish species in support of hatchery practices and stocking, including lake trout, Atlantic salmon, and brook trout. As native populations are adapted to their local environments, identifying genetic ancestry is required to maximize the effectiveness of rehabilitation efforts.

- Support Smallmouth Bass Regulation Proposal: Information from long-term smallmouth bass studies at the Harkness Laboratory of Fisheries Research used to inform fisheries policy related to the potential for earlier bass fishing seasons in southern Ontario.

- Lake Simcoe Lake Herring: Researchers are using new technology (hydro-acoustic) to measure the abundance of lake herring in Lake Simcoe. Results from this work will be used as input into future fisheries management for lake herring.

- Lake Erie Walleye Sustainable Harvest Models: Researchers around Lake Erie are studying how factors such as climate change will affect walleye recruitment and also continue to improve the ability of models to predict sustainable harvest levels.

- Haliburton Lake Trout: Researchers are analysing data to examine the effects of lake trout stocking and regulations based on a long-term study in the Haliburton area.

- Addition of five municipalities to the list of areas where Sunday gun hunting is permitted.

- First modern-day elk hunt in Ontario was held in fall 2011.

- A post-collaring winter survey of the elk herds in Bancroft and Peterborough District was undertaken to assist with the management decisions following the first elk hunt.

- A total of 18 elk were brought into the check stations which is 90% of total harvest. The data collected included biological data, hunt information and Chronic Wasting Disease (CWD) samples

- An Elk Calving Habitat study was done to determine the factors that impact elk productivity. The project will identify calving habitat in the Bancroft area and improve understanding of the role of site fidelity to calving success. This project will inform future harvest and related management decisions.

- Partnered with hunters from selected, high potential sites to continue with ongoing testing of harvested deer and elk for presence of Chronic Wasting Disease (CWD). All results have been negative to date.

- Surveillance and testing continues for White Nose Syndrome in bats with positive identification of the fungus in several additional areas in Ontario. We continue to work with partner agencies and other jurisdictions to develop surveillance and response plans to identify and stop the spread of this deadly fungus.

- Coyote study done in Prince Edward County to determine the population, habitat use, and movement patterns of coyotes in rural areas. The research is designed to support management decisions related to coyote harvest in southern Ontario.

- Development of science protocol with MNR, Ontario Fur Managers Federation and the Leeds-Grenville Coyote Working Group. Equipment purchases for the implementation of the project and a 2-day training session held with a U.S. Instructor on the use and application of the restraints for volunteer trappers, executive members, and Ministry staff.

- Moose Aerial Inventory: Conducted aerial surveys in eight Wildlife Management Units (WMU) (6, 15A, 21A, 27, 31, 40, 48, and 51) to estimate moose populations. Information is critical to determine the health of populations and the sustainable limit of harvest.

- A moose hair loss survey in North Bay District was implemented to assess relative damage of winter ticks on moose.

- Increased monitoring efforts by enhancing resident moose calf hunter surveys for 14 WMUs

to assist with harvest assessment and planning.

- North Bay District Office supported efforts to document and remove feral red deer.
- White Tailed Deer camera (pilot) survey done in Prince Edward County and Hastings County. This work was conducted during the summer of 2011 to collect information on sex ratios, fawn recruitment and to facilitate population estimates. Aerial surveys to map critical deer habitat were conducted in cooperation with Bancroft District in the northern portion of Peterborough District. The information gathered during the surveys will confirm existing deer yard boundaries and detect new yards not surveyed in previous years.
- Kemptville Deer Research: Study of hunting activities and land use practices to improve harvest allocations in areas with an over population of deer. The research includes public workshops and outreach to local landowners.
- Funding provided to implement key snow stations within core deer WMUs in Sudbury and Sault Ste. Marie. Used results in deer harvest planning in support of maintaining and enhancing Antlerless Deer Tag quotas.
- Developed, printed and distributed black bear posters to Bear Management Area operators on black bear sex identification and to solicit teeth submissions for ageing harvested bears to improve bear management planning.
- Implemented four black bear barbed-wire hair trap route surveys in WMUs 31, 34 and 44 to estimate black bear population densities. Surveys in WMU 44 were completed in partnership with stakeholders on Cockburn Island.
- Bat White-Nose Syndrome surveillance monitoring and supported outreach efforts were conducted with letters, fact sheets and poster displays at sportsmen shows and large regional mining events. New bat hibernacula were also identified.
- Furbearer Project: Research to improve understanding of use of habitat and movements across landscape in support the sustainable management. Species studied include martin, lynx, fisher, wolverine and otter.
- Waterfowl Banding: Long-term data collected to improve understanding of the distribution of Ontario's waterfowl population. Provides important information in support of the North American Waterfowl Management Plan.
- Hunter Surveys are collected and analyzed for deer, moose, bear and wolf. Surveys are designed to determine the number of animals harvested by sex and age class, as well as determine the tag filling rate in each WMU. Hunter effort and trend information such as moose seen per hunter per day is also determined. Each year surveys are analyzed and the results are used to support management decisions.
- Successfully launched the Licensing Automation System (LAS) in September 2011.

- Hullett Grassland – site preparation of 10 acres of tallgrass prairie at a new site at the Hullett Provincial Wildlife Area.

- Enforcement Branch made 279,960 public contacts, gave 9,621 warnings and laid 6,930 charges.

- The Ministry provided displays and staff to promote and educate about fish and wildlife at Outdoor Shows, and educational public events.